

ZIXUAN LIANG

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Boston, Massachusetts 02115 ◇ (857)200-9708

EDUCATION

Northeastern University

May 2019 - Present

PhD student in Computer Engineering

Boston, MA

GPA: 3.8

Relevant Coursework: Advanced Machine Learning, Database Systems, Information Retrieval, Natural Language Processing, Deep Learning for Computer Vision, Advanced Algorithms

SKILLS

Programming

Python, C++, Java, JavaScript, HTML, CSS, SQL, Verilog

Library

TensorFlow, PyTorch, Keras, scikit-learn, OpenCV

Framework

Django, Flask, Spring Boot, React, AngularJS, jQuery, ROS

Software

PyCharm, CLion, Android Studio, MySQL, Elasticsearch, Tableau, Power BI

RESEARCH

Northeastern University

May 2019 - Apr 2020

Research Assistant

Boston, MA

- Project: Distributed Drones Operating under Uncertainty funded by the Air Force Research Lab.
- Built modular C++ packages based on Robot Operating System, so that multiple drones could execute predefined tasks autonomously and communicate within decentralized ad-hoc network.
- Developed an efficient and fast object detector based on YOLOv3, by designing deeper but narrow architecture and utilizing distillation loss function. Achieved a speed of over 50 FPS on Jetson TX2.
- Jointly trained the YOLOv3 and Tracktor++ models by evaluating both detection and tracking metrics to meet the need of autonomous flying.
- Generated virtual scenes by applying generative adversarial networks, to tackle imbalance of the dataset.
- Demo video of the fully autonomous drones: [Link](#)

WORK EXPERIENCE

Lonza

May 2018 - July 2018

Data Analyst Intern

Visp, Switzerland

- Managed the master data including customers, suppliers, employees, products, etc., by integrating Python automation scripts into SAP system.
- Built conversational chatbots to help train over 3000 new employees coming from recent acquisition of Capsugel, using Rasa the open source bot building framework, Elasticsearch and Kibana.
- Wrote OCR program in Python, to automate the process of documents digitization.
- Conducted data visualization of the business data and presented reports to the manager, by creating interactive dashboard and data charts with JavaScript, Tableau and Power BI.

RTBAsia

Jun 2017 - Aug 2017

Software Engineer Intern

Shanghai, China

- Built a brand safety system to protect advertisers on the demand-side platform, by identifying sites with harmful contents to their branding, using convolutional neural networks to filter images and long-short term memory to filter text.
- Developed Django REST API for the real-time bidding on the demand-side platform.